

BLAST LOADS FOR WINDOWS & LIGHT GAUGE METAL		
ELEVATION	PRESSURE	IMPULSE
NORTH	P = 4.685 psi	I = 67.27 psi-msec
EAST	P = 5.71 psi	I = 29.47 psi-msec
SOUTH	P = 2.65 psi	I = 15.17 psi-msec
WEST	P = 2.197 psi	I = 45.43 psi-msec

2.43

5.71

29.69

40.70

29.47

WIND PRESSURES		
LOCATION	EFFECTIVE AREA ≤ 10 FT <sup>2</sup>	EFFECTIVE AREA ≥ 500 FT <sup>2</sup>
④	+65.7 PSF -71.3 PSF	+48.0 PSF -54.6 PSF
⑤	+65.7 PSF -88.0 PSF	+49.0 PSF -54.6 PSF

+32.9  
-35.7

+32.9  
-44.1

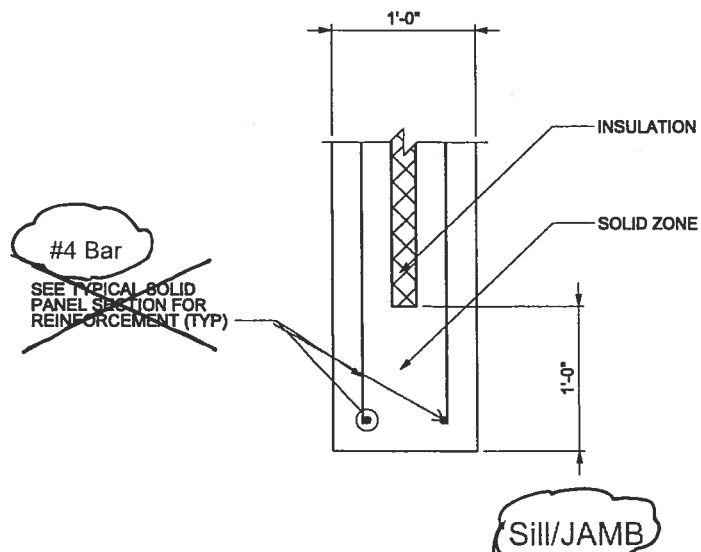
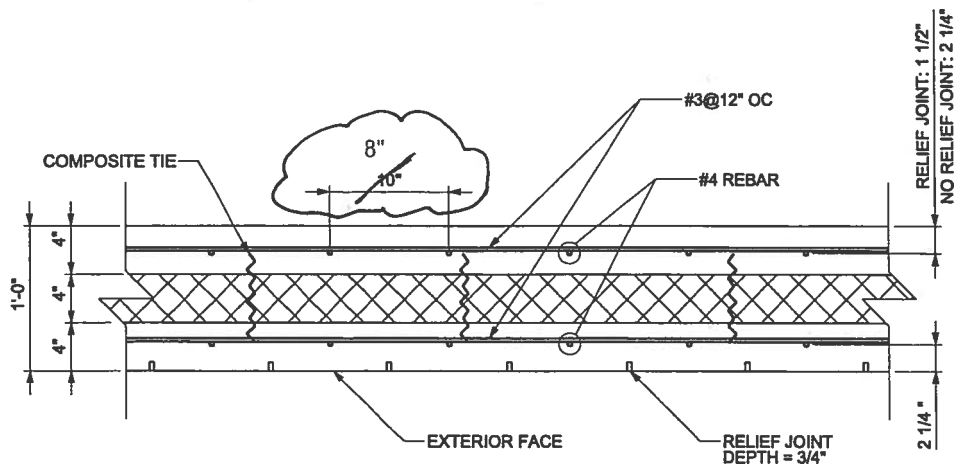
+24.6  
-27.4

+24.6  
-27.4

WIND PRESSURE NOTE:

1. FOR OTHER EFFECTIVE AREAS, LINEAR INTERPOLATION IS PERMITTED.

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**TYPICAL HEADER/JAMB DETAIL**  
SCALE: NONE

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1. THE PANEL REINFORCEMENT WAS DESIGNED FOR THE SITE PERFORMANCE REQUIREMENTS. CHANGES BY THE CONTRACTOR IN PANEL DIMENSIONS, CONNECTION LOCATIONS, VERTICAL REINFORCEMENT, HEADER AND SILL REINFORCEMENT, OR MATERIALS MAY REQUIRE THE CONTRACTOR TO RETAIN THE SERVICES OF A QUALIFIED BLAST ENGINEER AND SUBSEQUENT REVIEW BY THE GOVERNMENT. THIS MAY RESULT IN CHARGES TO THE DESIGN INCLUDING CONNECTION LOAD DEMANDS. ALL SUCH CHANGES SHALL BE IN ACCORDANCE WITH ACI 318 EXCEPT AS NOTED OR APPROVED AND SHALL RESULT IN NO ADDITIONAL COST TO THE GOVERNMENT.

2. PANEL SIZING IS BASED ON A CONCRETE 28 DAY COMPRESSION STRENGTH ( $f_c$ ) OF 5000 PSI, ASTM GRADE 60 REINFORCEMENT, AND FULLY LOADED OPENINGS.

3. PANEL REQUIRED REINFORCEMENT AND PANEL CONNECTION LOADS ARE BASED ON A 4-4-4 (CONCRETE-INSULATION-CONCRETE) COMPOSITE SANDWICH PANEL. LIFTING HARDWARE SHALL BE SIZED AND REINFORCEMENT SHALL BE VERIFIED OR INCREASED BY THE MANUFACTURER AS REQUIRED FOR ERECTION LOADS. CHANGES IN HORIZONTAL REINFORCEMENT (EXCLUDING HEADERS AND SILLS) AND THE ADDITION OF SOLID ZONES WILL NOT ADVERSELY AFFECT EXISTING DESIGN.

4. PRECAST DESIGN ASSUMES A COMPOSITE SHEAR TIE SYSTEM. THE COMPOSITE SHEAR TIE SYSTEM SHALL BE DESIGNED BY THE MANUFACTURER AND IS BASED ON THE TIE STRENGTH DERIVED FROM ICC AC-308 OR AC-408 AND EITHER THE ULTIMATE FLEXURAL STRENGTH OF THE PANEL OR THE SHEAR FLOW AT THE PANEL'S ULTIMATE FLEXURAL CAPACITY. THE ULTIMATE FLEXURAL STRENGTH OF THE PANEL IS THE LOWER OF EITHER THE CONCRETE CAPACITY OF THE COMPRESSION WYTHE OR THE STEEL CAPACITY OF THE TENSION WYTHE. THE SHEAR FLOW OR INTERFACE SHEAR DEMAND IS DERIVED USING ELASTIC CONCEPTS AND A UNIFORM LOAD THAT WOULD EQUATE TO THE ULTIMATE FLEXURAL CAPACITY OF THE PANEL.

5. PANEL CONNECTION DESIGN (PANEL TO STRUCTURE) IS THE RESPONSIBILITY OF THE MANUFACTURER AND SHALL BE DESIGNED USING THE PROVIDED REACTION LOADS FOR BOTH INBOUND AND REBOUND CONDITIONS WITH SPECIFIC RESISTANCE TO INBOUND PUNCHING SHEAR AND REBOUND CONNECTION DESIGN USING A FULLY CRACKED SECTION.

6. INCIDENTAL OPENINGS NOT CAPTURED IN PANEL DESIGNS SHALL FOLLOW ACI STANDARD OF PRACTICE.

7. PROVIDE MINIMUM REFORCEMENT AS FOLLOWS UNO:  
V: #4 @ 8" O.C., ESW (EACH STRUCTURAL WYTHE)  
H: #3 @ 12" O.C., ESW

9. PRECAST PANEL JAMBS (VERTICAL AREA OF PANEL THAT IS ADJACENT TO AN OPENING) LESS THAN 3'-0" WIDE SHALL BE CAST SOLID (WITHOUT INSULATION) THE ENTIRE LENGTH OF THE PANEL IN THE JAMB AREA ONLY.

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